

STATE OF ILLINOIS       )  
                              )  SS.  
COOK COUNTY               )

AFFIDAVIT OF ROBERT E. COTTA

ROBERT E. COTTA, being first duly sworn according to law, comes forward and states:

1. My name is Robert E. Cotta. I am employed by Sargent & Lundy as the Senior Electrical Project Engineer for the Wm. H. Zimmer Nuclear Power Station. In this position I oversee the electrical design and cable interface between various electrical systems. Specifications for electrical equipment also fall in my area of responsibility. In addition, I have participated in the development of fire protection criteria for cables and cable trays and in the design and observation of various tests relating to this equipment.

2. A statement of my professional qualifications is attached hereto as Exhibit A and is incorporated by reference herein.

3. With regard to electrical cables and cable trays, I participated in the development of fire protection criteria and in the development of the Fire Protection Evaluation Report ("Fire Report") consisting of the Report and 14 revisions which form part of the Application for an operating

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license for the Zimmer Station. This Report, as revised, is, to the best of my knowledge, information and belief, true and correct and incorporated into this affidavit by reference. <sup>\*</sup>/

4. I am familiar with the tests conducted by the Construction Technology Laboratories ("CTL") of the Portland Cement Association (Revision 13 to the Fire Report). I observed the tests and have studied the resulting report entitled "Fire Protective Cable Tray Fire Test Report." This report is true and correct to the best of my knowledge, information and belief. The cable trays utilized in the CTL test are the same type as utilized in the Wm. H. Zimmer Nuclear Power Station. In addition, the type of Kaowool used in the tests will be the same as utilized at the Zimmer Station. The method of application utilized in the course of the tests will also be identical to that used at the Wm. H. Zimmer Station. Moreover, the cables utilized in the CTL tests were the same type which will be cocooned in Kaowool at the Zimmer Station.

5. The 90-minute test period for the CTL test was determined after consultation with the NRC Staff. It was

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<sup>\*</sup>/ It should be noted that Revision 12 which reports on tests which were run by Husky Products, Inc. for the Wm. H. Zimmer Station from September 1978 through January 1979 is only being relied upon with regard to the ampacity measurements for a cocooned cable tray. In addition, Underwriters Laboratories Test Report R8758 dated September 6, 1978 entitled "Report on Cable Raceway Protection Systems, Fire Test Investigation," while valid, has been superseded by the CTL Report contained in Revision 13.

determined on the basis that if this test were passed, a sufficient degree of fire protection in needed parts of the Zimmer facility would be provided considering the various locations of cable trays, ignition and fuel sources, and fire detection and fire protection measures at the various locations.

6. All cable trays which are to be cocooned will be wrapped with three one-inch layers of Kaowool as utilized in the CTL tests. Cables which pass through cable trays cocooned with Kaowool have been suitably derated in order that their design temperatures are not exceeded either in normal operation or as a result of a postulated fire.

7. The design of the Zimmer Station utilizes concrete curbs around penetrations of floors through which cable trays are routed such that any flammable or other liquids spilled on the floor cannot contact a vertical cable tray or penetrate into the Kaowool cocoon. In addition, when Kaowool butts to a floor, ceiling or wall, a qualified fire retardant sealant will be used to further prevent penetration of any flammable liquid.

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8. Therefore, I conclude Miami Valley Power Project's  
Contention 17 is completely lacking in merit.

  
Robert E. Cotta

Sworn and subscribed to before me this  
\_\_\_\_ day of \_\_\_\_\_, 1979.

\_\_\_\_\_  
Notary Public

My Commission expires \_\_\_\_\_.

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STATEMENT OF PROFESSIONAL QUALIFICATIONS  
ROBERT E. COTTA  
SENIOR ELECTRICAL PROJECT ENGINEER  
SARGENT & LUNDY

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My name is Robert E. Cotta and I am the Senior Electrical Project Engineer for the Wm. H. Zimmer Nuclear Power Station. My business address is Sargent & Lundy Engineers, 55 E. Monroe Street, Chicago, Illinois 60603.

As Senior Electrical Project Engineer, my duties are to oversee the electrical design and the cabling interface between various electrical systems. Specifications for electrical equipment also fall in my area of responsibility. I directed the fire protection aspects of cable tray and cable design and I participated in the preparation of the Fire Protection Evaluation Report for the Zimmer Station.

I have completed two years of college level courses at the University of Michigan and the University of Illinois. I am a registered professional engineer, having passed the examination in the State of Illinois, and I am also registered in the State of Ohio. My work history includes 8 years as a plant engineer with several companies, and several years working in maintenance and operating groups for utility companies. I have been with Sargent & Lundy for the past 13 years.

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In 1966 and 1967, I was assigned to the coordination of electrical drawings for the Nuclear Steam Supply Systems on boiling water reactor plants. From that time through 1972, I was assigned as the Electrical Project Engineer and subsequently Senior Electrical Project Engineer on a two unit boiling water reactor. For the past 9 1/2 years, I have been Senior Electrical Project Engineer assigned to the Zimmer Station project.

My professional activities include membership on the Ad Hoc Work Group which developed IEEE 384, "Criteria for Independence of Class 1E Equipment & Circuits," membership on the Steering Committee of the IEEE for the Task Force to develop fire stop standards, past Chairman of the IEEE Wire & Cable Systems Work Group which developed IEEE 422, "Guide for the Design & Installation of Cable Systems in Power Generating Stations," and presently Chairman of the Station Design Subcommittee of IEEE.

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